



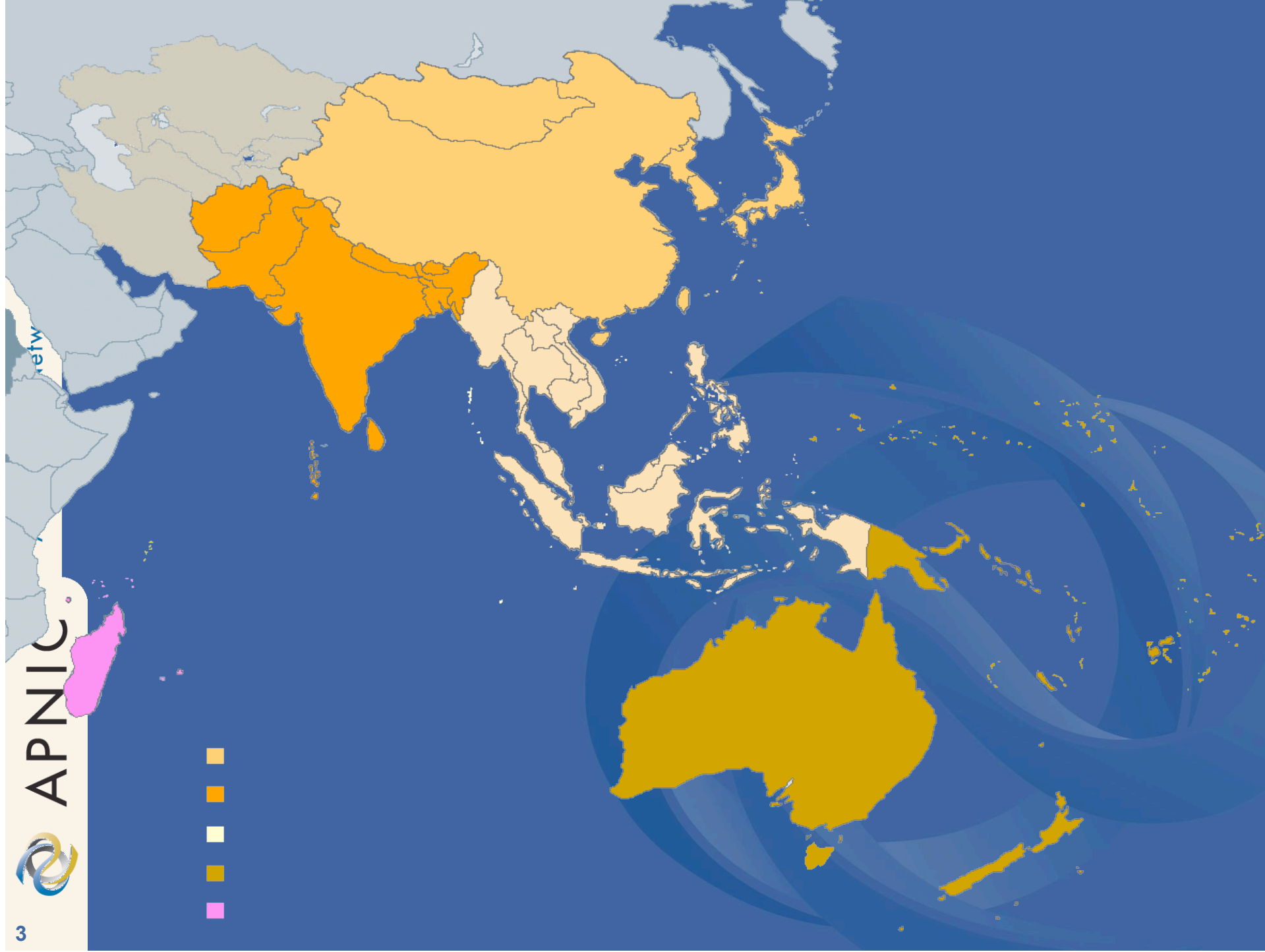
APNIC support for Internet development

APT/PITA Regional Meeting on ICT for the Pacific
25-27 August 2004, Nadi, Fiji

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What is APNIC?

- Regional Internet Registry (RIR) for the Asia Pacific region
 - Regional authority for Internet resource distribution
 - One of four RIR currently operating globally
 - IP addresses (IPv4 and IPv6), AS numbers, reverse DNS delegation
 - Provide services to ~950 ISPs
- Industry self-regulatory body
 - Established in 1993
 - Consensus-based, open and transparent
 - Non-profit, neutral and independent
 - Open membership-based structure



Support for Internet development

- Core services
 - Critical infrastructure services
 - Policy coordination
- Other services
 - Training and education
 - Information resources
 - Technical support services
- Other activities
 - Development activities
 - Internet “governance”

Core APNIC services



Internet resource management

- IP address allocation to ISPs and NIRs
- IP address assignment to end users
- AS number assignments



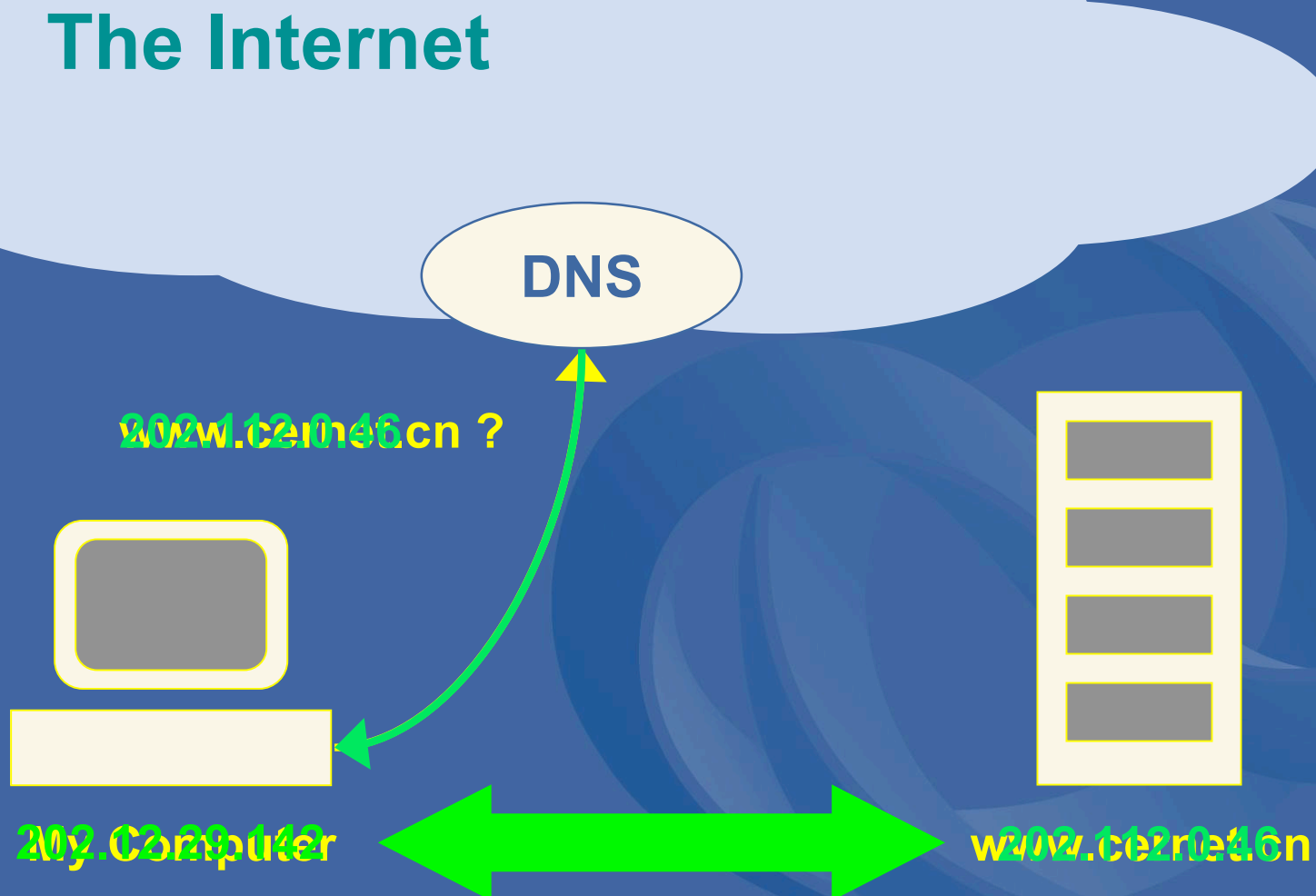
Resource registration

- Authoritative registration server
 - *whois.apnic.net*
- Reverse DNS management
 - *in-addr.arpa*, *ip6.arpa* (*ip6.int*)

3. Policy coordination

- APNIC Open Policy Meetings: 2 per year
- ASO and ICANN processes (more later)

What is an IP address?

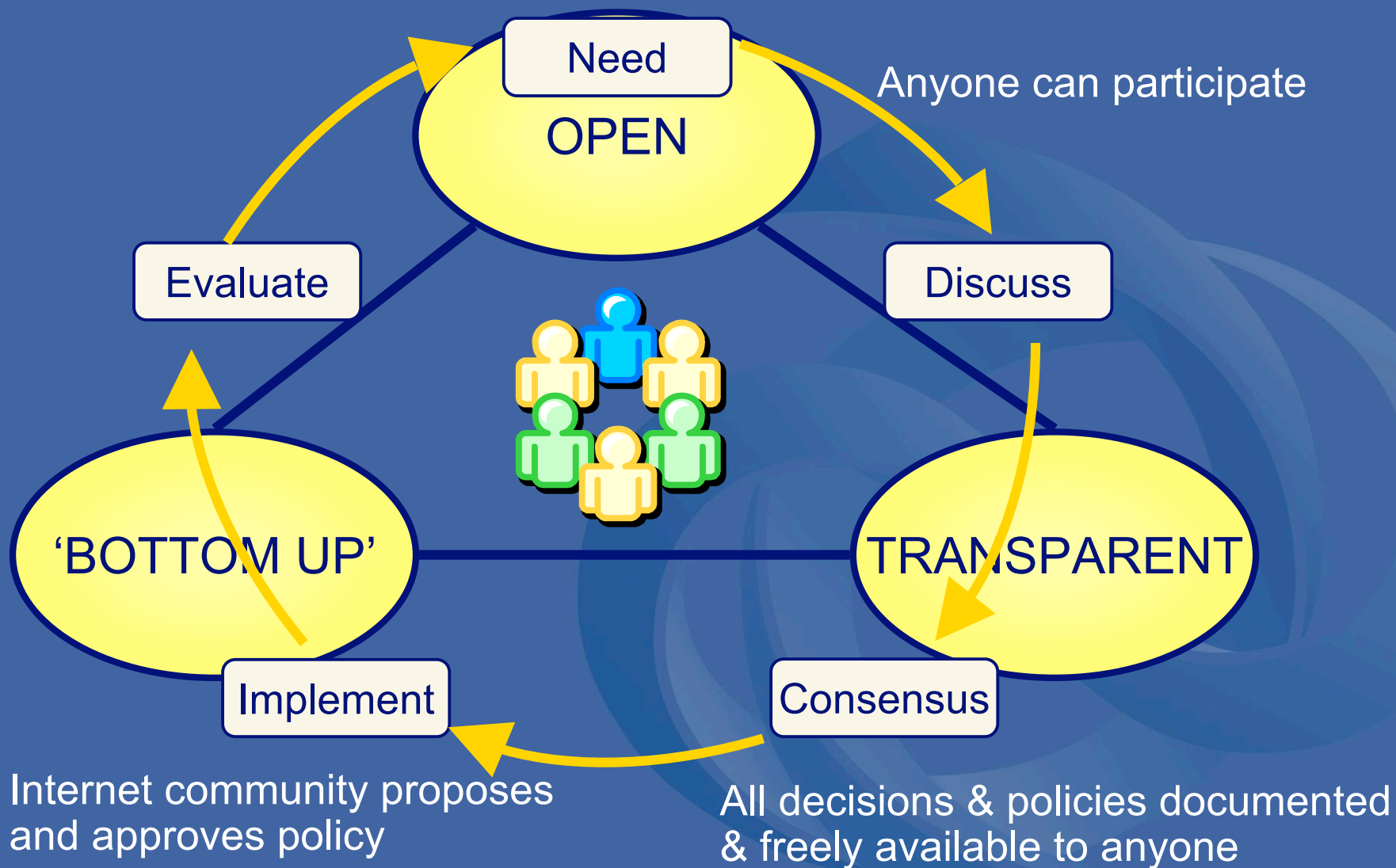


What is an IP address?

- Internet infrastructure address
 - Globally unique*
- A finite common resource
 - IPv4: 32-bit number
 - e.g. 192.131.13.3
 - 4 billion addresses available
 - IPv6: 128-bit number
 - e.g. 3ffe:1a00:ff00::
 - Potentially*, equal to (IPv4)4
- **IP does not mean “Intellectual Property”**



APNIC Policy Process



Training and Education

- Training tutorials and workshops
 - Target ISP technical staff
 - APNIC core responsibilities
 - Additional technical topics of interest to APNIC members
- Curriculum
 - Internet Resource Management I & II
 - Internet Routing Registry
 - DNS workshop
 - Routing workshop under development
- Partners sought to host
 - “Expression of Interest” may be submitted

Outreach and collaboration

- RIR Coordination
 - ICANN process
 - NRO activities
- Participation at various forums
 - WSIS, ITU, APT, PITA, SANOG, APRICOT...
- MoUs signed between parties
 - PITA, SANOG, rootserver operators, others...



Information resources

- Helpdesk and resource guides
 - IPv4, IPv6, WHOIS database, ASNs
- Reports and statistics
 - Global statistical data on IP allocations
 - Annual reports, newsletter etc
- MyAPNIC
 - “All in one” secure management interface for members to manage relationship with APNIC
- ISP Support Resources
 - Public website currently under planning

IPv4 resource guide

IPv4 resource guide - Microsoft Internet Explorer

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IPv4 resource guide

IPv4 Internet addresses are unique 32-bit identifiers used to address hosts on the Internet.

Although IPv6 addresses are now available, most networks on the Internet are still addressed using IPv4 address space.

Contents

- Policy and IPv4 information
- Request forms

Policy and IPv4 information

Address policy	Request guidelines	Membership and fees
<ul style="list-style-type: none"> Address space management in the Asia Pacific region IPv4 allocations for African economies within the APNIC region The "no questions asked" prefix return policy [ftp] Policies for the transfer of historical Internet resources Translated documents RIR Comparative policy overview 	<ul style="list-style-type: none"> IPv4 allocation and assignment requests [ftp] Requesting a second opinion on a sub-allocation 	<ul style="list-style-type: none"> APNIC membership Fee schedule Membership transfer procedures IP and ASN records transferred to APNIC
APNIC information	Data and statistics	Other

Internet

Technical services

- Core technical services
 - Registration database (whois)
 - Reverse DNS (in-addr.arpa, ip6.arpa)
- Troubleshooting tools
 - “Looking glasses” to assist BGP debugging
 - APNIC Routing Registry
- MyAPNIC
 - Customer website for APNIC services
 - “All in one” secure management interface

Technical services

- Root server deployments
 - MoU's with root operators (F, I so far)
 - New host locations welcome (send EOI's)
 - *More root servers now outside of the US*



- APNIC PoPs 
 - Reliable distributed services
 - AU, JP, HK
 - Online services: reverse DNS, whois, www

Development support

- Research & Development
 - Partner in PAN ICT R&D grants programme
 - With UNDP, IDRC, AMIC, Microsoft
 - e.g. grant to PFnet
 - <http://www.apdip.net/projects/ictrnd>
- Funding assistance for fellowship and training
 - APNIC Fellowship Programme
 - APNIC Training Programme
 - APRICOT support and sponsorship
 - InfoDev (World Bank)
 - ITU

Internet “Governance”

- Active participation in ICANN process
 - Founding of Address Supporting Organisation (ASO)
 - Substantial funding (fee) input into ICANN
- Number Resource Organisation
 - Coalition of all RIRs
 - APNIC, ARIN, LACNIC, RIPE NCC
 - Independent from ICANN
 - For joint activities among RIRs
 - Technical services (in-addr.arpa, global whois etc)
 - Establishment of ASO with ICANN (by MoU)



Internet “Governance”

- Active participation in WSIS I and II
 - Since early 2003
 - Supporting ongoing evolution of “ICANN Model”
- “Open Regional Dialog and Capacity Building on Internet Governance”
 - Proposed project with UNDP/APDIP (KL) and IDRC (Ottawa/Singapore)
 - Development of Asia Pacific inputs into WSIS
 - WGIG in particular
 - Regional survey, resource website, and governance training

APNIC Open Policy Meeting

APNIC 18

Nadi, Fiji, 31 Aug- 3 Sep 2004



- Participate in policy development
- Attend workshops, tutorials & presentations
- Exchange knowledge and information with peers
- Stay abreast with developments in the Internet
- View multicast online
- Provide your input in matters important to you
- **Fellowships Available**

<http://www.apnic.net/meetings/18>



APNIC Open Policy Meeting

APNIC meetings | APNIC 18 | Draft schedule - Microsoft Internet Explorer

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<div>Registration ▶</div> <div>Programme ▶</div> <div>HM consultation</div> <div>Social events</div> <div>Sponsorship</div> <div>Fellowship</div> <div>Accommodation</div> <div>About Fiji</div> <div>APNIC meetings ▶</div> <div>APNIC 18 home</div> <div>APNIC home</div> <div>Onsite Notice Board ▶</div>	<table><tr><th></th><th>Tutorials</th><th colspan="3">Open Policy Meeting</th><th>Member Meeting</th></tr><tr><th></th><th>Tuesday 31 August</th><th>Wednesday 1 September</th><th>Thursday 2 September</th><th>Friday 3 September</th></tr><tr><td>8:30</td><td colspan="5">Registration</td></tr><tr><td>9:00</td><td>Internet resource management essentials </td><td>Opening plenary </td><td>Policy SIG </td><td>APNIC Member Meeting </td></tr><tr><td>10:30</td><td colspan="5">Morning tea</td></tr><tr><td>11:00</td><td>Internet resource management essentials </td><td>IPv6 technical SIG </td><td>IX SIG </td><td>Database SIG </td><td>APNIC Member Meeting </td></tr><tr><td>12:30</td><td>Lunch</td><td colspan="2">Over lunch on Wednesday, learn how you can influence IP policy</td><td>Lunch</td><td>Lunch</td></tr><tr><td>14:00</td><td>IRR concepts </td><td>APTLD</td><td>Policy SIG </td><td>DNS operations SIG </td><td>APNIC Member Meeting </td></tr><tr><td>15:30</td><td colspan="5">Afternoon tea</td></tr><tr><td>16:00</td><td>IRR case study and demo </td><td>APTLD</td><td>Policy SIG </td><td>Routing SIG </td><td>NIR SIG </td><td>APNIC Member Meeting </td></tr><tr><td>17:30</td><td colspan="5">Break</td></tr><tr><td></td><td></td><td>NIR training BOF</td><td>APOPS</td><td>PGP key signing BOF</td><td></td></tr></table>		Tutorials	Open Policy Meeting			Member Meeting		Tuesday 31 August	Wednesday 1 September	Thursday 2 September	Friday 3 September	8:30	Registration					9:00	Internet resource management essentials 	Opening plenary 	Policy SIG 	APNIC Member Meeting 	10:30	Morning tea					11:00	Internet resource management essentials 	IPv6 technical SIG 	IX SIG 	Database SIG 	APNIC Member Meeting 	12:30	Lunch	Over lunch on Wednesday, learn how you can influence IP policy		Lunch	Lunch	14:00	IRR concepts 	APTLD	Policy SIG 	DNS operations SIG 	APNIC Member Meeting 	15:30	Afternoon tea					16:00	IRR case study and demo 	APTLD	Policy SIG 	Routing SIG 	NIR SIG 	APNIC Member Meeting 	17:30	Break							NIR training BOF	APOPS	PGP key signing BOF	
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Internet



Special Invitation...

APNIC CEOs' Meeting Nadi, Fiji, 30 Aug 2004

- First ever APNIC event for CEOs and Snr Executives
- APNIC business and operating model
- Global issues affecting IP addressing
- Provide input into APNIC strategy and policy
- Networking with peers

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Thanks

Questions?